

BRINJAL CULTIVATION IN MODERN ORGANIC FARMING



P. Suresh s/o K. Parameshwaran, 43, is a leading farmer from Kannivadi village, Reddiarchatram block, Dindigul district, Tamilnadu. His family income is depending only from farming of 3.5 acres of land. His father was doing agriculture in last 40 years. He was completed his studies of diploma in Mechanical engineering and worked in many engineering companies. Then his mindset was changed into farming in 1998. He was involved in farming from 1999. He has been cultivated vegetables, coconut, banana and cotton since 2000. He was learning all the techniques and practices of conventional farming from his father and other neighbouring farmers. Due to the uncertainty in farming and increasing the cost of cultivation, he got a thin margin of earnings from conventional farming.

He planned to convert to organic farming. His father and family members refused for the organic practices. Slowly he convinced his father and learning the organic farming techniques from books and already practiced farmers. Due to fear he was used chemical fertilizer and not in used the chemical pesticide to control the pests. Then he was applied bioinputs application in banana with technical support of M.S. Swaminathan Research Foundation and Banana Research center, Trichy in 2010. He also applied manure and bioinputs like biofertilizer (Azospirillum, Phosphobacteria, VAM and Potash mobilising bacteria) biofungicides (Trichoderma viride , Pseudomonas flourocens and Bacillus subtilis) and he used Beauveria bassina and Verticillum for control of pests. He got better yield from banana than other farmers and also controlled Fusarium wilt. He reached a self reliance to control pest and disease by organic methods, so he was planned to able to convert fully organic farming.



He was practiced the organic farming in Cauliflower crop in 0.5 acre. He applied 2.0 tonnes of cow manure with addition of bioinputs and organic inputs (purchased a company products prepared from sea weeds) and control the pests, but the cost of the material was increased in equal to chemical pesticides. He planned to prepare organic materials for own for next crop.



He received the informations about organic farming techniques and practices through various training and exposure visits conducted through ecoveg project by SAAL and MSSRF. He planned to cultivate brinjal in 20 cents.

Highest Infection of pest and disease problem is occurred in Brinjal than other vegetables and it is equal to cotton. Brinjal seedlings were transplanted with support of family members and labours. On 22nd, 25th and 45th day weeding was done, in that time 3% of (30 ml/lit) Panchakavya, mixture of Coconut and buttermilk (Themore karaisal) and Boon (organic micronutrient mixture prepared from sea weeds) was basal application and also sprayed.

He was applied 1.0 ton of cow manure with addition of bioinputs like biofertilizers (Azospirillum, Phosphobacteria, VAM and Potash mobilising bacteria) biofungicide (Trichoderma viride, Pseudomonas flourocens and Bacillus subtilis). Then he sprayed 10% solutions of Beaveria bassina to control pests. Then he had done foliar



spray of Panchakavya and organic inputs with regular interval. The plants infected by stem borer and the leaves were attacked by sucking pests like whitefly. He applied 10% solution of Verticillium lecani and 5% mixture of three types of botanical extract oils (Pungam oil- Pongamia pinnata, Neem oil- Azadirachta indica and Eluppai oil- Madhuca longifolia). This treatment was continuously followed by him in once in fifteen days. He also used yellow stick traps to adsorb the sucking pest. Simultaneous fruits affected by leptopteran larvae. The pests were controlled by the application of mixed neem oil and Beauveria bassina. By using these methods, he got good yield and good quality of the products. He obtained 1500 Kgs of brinjal with 90 % of the quality vegetables remaining were borer affected vegetables. He was earned Rs 15000 from 20 cents with low expenses.

A quote tells “Practices makes a man perfect”. He planned to cultivate brinjal in 30 cents in organic way with good planning and applying early experiences. He cultivated wild variety of green



brinjal and he was followed the same practices and n raised the border crop of sunflower to trap the pests and transplanted the onion as an intercrop for better income. He also effectively used solar automatic light trap promoted by SAAL. It was trapped the moths and pests and also its controlled 40-45% of pests.

The dropping of flower was due to micronutrients deficiency in brinjal. He applied panchakava and themore karaisal and Amutha karaisal but the flower dropping was continuously affected the yield. The Christian Aid was organised a PMSD workshop at Madurai. In that workshop a participant from philipines told a technology for the preparation of micronutrient and hormones extract method. He adopted that method.

The growing younger banana suckers in side of the trees (growing in corm) were harvested in early morning, because the plant hormones are accumulated in the tip of the suckers in early morning. He took 5 nos younger suckers and cut into small pieces and soaked in the 10 lts of water and added 1.0 Kg of jaggery. After the 5th day filtered the solution and sprayed it in 1: 10 ratio.

He applied continuously and reduced the flower dropping. The solution were prepared by his wife. Now she was expert in preparation of these type of solutions. He earned Rs.32000 from 30 cents. He marketed his vegetable through local sandy market, SAAL and veg. market in nearby town. So he got good prices for his vegetables.



Key observation:

Control of pest and disease is one of the most important problem for all the farmers by organic way. By his practices, the factors like crop tolerated from 5- 6 days in low irrigation potential, mono cropping, border crop and intercrop and highly tolerable to pest and disease by crops, also the beneficial insects like predator for larvae and Cryptolaemus (beetle- it feeds sucking pest) alive in his field, these were lead to organic farming was a successful practices for sustainable agriculture.



Income and expenditure

Expenditure

Particulars	Quantity (Kg)	Cost (rs)/ kg	Total (rs)
Manure cost	1 ton	600	600
Bioinputs	5	80	400
Ploughing	2 times	700	1400
Ridging	2	500	1000
Seedlings	2000	0.25	500
Seedling transplantation	4 members	120	480
Weeding	12 members	120	1440
Panchakavya, Themore karaisal	10 lit	75	750
Other preparation expenses			300
Mixture of oil (Neem oil)	1 lt	300	300
Boon	0.5 lt	200	200
Yellow stick traps	10	5	50

Harvesting	20	120	2400
Travel and other expenses			1000
Total			10820

Income:

Yield	Quantity (kg)	Cost (Rs)
Income	1600	32000
Expenses		10820

Profit: 32000- 10820 = Rs. 21180

Here, it is mainly observed that usually the cost of cultivation exceeds Rs.15, 000/- to 20,000/- in conventional farming, but the income is same. In organic agriculture package of practices are non dependant mainly over fertilizers, pest control measures like chemical pesticides etc.

Strategy Adopted:



He was trained in organic farming practices, field visits, exposure visits. Application of organic manure, practices of IPM like biofungicide, biopesticide, botanical extract spray like Neem, Pungam and Eluppai, biofungicide, border crop yellow sticky traps and light traps and proper method and time of harvesting, cleaning, grading, packing, hard and efficient working were lead to his success.

In organic farming of brinjal the control measures to be identified in future for viral disease infections.

Horizontal transfer of technology

“His father and family members refused for the organic practices in starting time”.

After his success in organic farming, now his father was doing the organic practices in his field and transfer these knowledge and techniques to other nearby farmers and his friends.



Other farmers visited his farm during critical stage of pest and diseases. Some of the farmers adopted the organic practices.